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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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EXAMINER

MICHALSKI, JUSTIN I

ART UNIT	PAPER NUMBER
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2644

17

DATE MAILED: 08/11/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/691,337

Applicant(s)

WILDHAGEN, JENS

Examiner

Justin Michalski

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 16 March 2004.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 2-4 and 14-42 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 2-4 is/are allowed.
- 6) ☒ Claim(s) 14-16, 18, 20, 21, 24-26, 28-30, 34, 36-38, and 42 is/are rejected.
- 7) ☒ Claim(s) 17, 19, 22, 23, 25, 27, 31-33, 35 and 39-41 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION***Specification***

1. The Specification is objected to because of the following informalities: Each claim must start with "I (or we) claim," "The invention claimed is" (or the equivalent). See MPEP 608.01(m). Appropriate correction is required.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

3. Claims 14, 15, 26, 34, and 42 are rejected under 35 U.S.C. 102(e) as being anticipated by Noeske et al. (Hereinafter "Noeske") (US Patent 6,351,631).

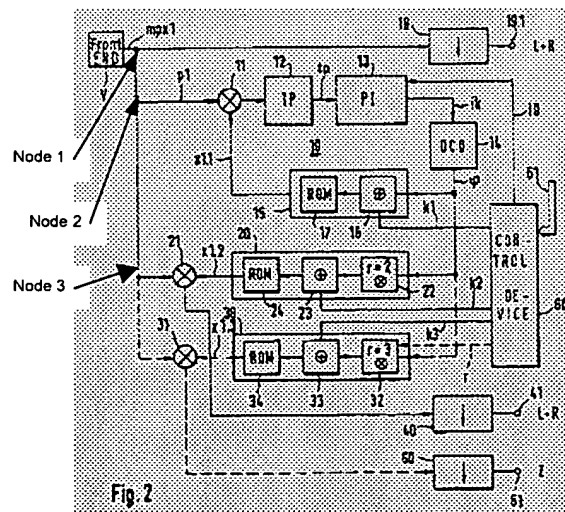


Figure 2

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Regarding Claims 14 and 26, Noeske discloses a method to retrieve RDS information (Front END (V) to node 1) by filtering and transforming an incoming multiplex signal into an amplitude demodulated RDS signal, characterized in that an amplitude modulated RDS signal (signal from (31) to (50)) is derived on basis of a first intermediate signal (signal from node 1 to (21)) obtained during an extraction of a stereo-difference signal from the incoming multiplex signal (extraction of difference of multiplex signal at (21) starts from separation of signal at node 1 and continues through (21)), wherein said first intermediate signal lies along a signal path separate from a signal path of an extraction of a stereo sum signal from the incoming multiplex signal (node 1 to (19)), and said first intermediate signal (node 1 to (21)) is distinct from intermediate signal obtained during said extraction of said stereo-sum signal (node 1 to (19)) from said incoming multiplex signal.

Regarding Claims 15 and 16, Noeske discloses a method for retrieving RDS information from a multiplex signal (Front END (V) to node 1), comprising the steps of: obtaining, from said multiplex signal, a first intermediate signal from which a stereo-difference signal of said multiplex signal can be extracted (signal from node 1 to (21) and (31)); extracting from said multiplex signal, a stereo-sum signal (signal from node 1 to (19)); and deriving an amplitude modulated RDS signal on the basis of said first intermediate signal (signal from (31) to (50)), wherein said obtaining of said first intermediate signal is separate from said extracting of said stereo-sum signal; and said first intermediate signal is distinct from said multiplex signal (signal from node 1 to (21) and (31) is distinct from multiplex signal from (V) to node 1). Noeske further discloses

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information on twice the pilot frequency (i.e. second harmonic of a pilot carrier) (Col. 1, lines 18-23).

Regarding Claims 18, 20, and 21, Noeske further discloses amplitude demodulation (Col. 1, lines 29-45) and PLL signals (Col. 1, line 58).

Regarding Claim 24, and 25 Noeske further discloses sampling rate decimation of the carrier and RDS signals (Col. 4, lines 5-12).

Regarding Claim 34, Noeske discloses an apparatus for retrieving RDS information from a multiplex signal (signal from (V) to node 1) comprising: means configured and adapted for obtaining, from said multiplex signal, a first intermediate signal (signal from node 1 to (21) and (31)) from which a stereo-difference signal of said multiplex signal can be extracted (21); means configured and adapted for extracting, from said multiplex signal, a stereo-sum signal (signal path from node 1 to (19)); and means configured and adapted for deriving an amplitude modulated RDS signal on the basis of said first intermediate signal ((31) to (50)), wherein said means for obtaining said first intermediate signal is separate from said means for extracting said stereo-sum signal; and said first intermediate signal is distinct from said multiplex signal (node 1 to (21)) is distinct from intermediate signal obtained during said extraction of said stereo-sum signal (node 1 to (19)).

Regarding Claim 42, Noeske discloses a apparatus for retrieving RDS information from a multiplex signal, comprising: a first signal path (node 1 through (21)), via which a stereo-difference signal is extracted from said multiplex signal (21); a second signal path, separate from said first signal path, via which a stereo-sum signal is

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extracted from said multiplex signal (node 1 to 19); and a third signal path, branching from said first signal path (node 3 to 31), via which said RDS information is retrieved; and mixing means (21) situated along said first signal path upstream from a branching off point (node 3) of said third signal path from said first signal path.

4. Claims 28-30 and 36-38 are rejected under 35 U.S.C. 102(b) as being anticipated by Richards, Jr. (Hereinafter "Richards") (US Patent 5,507,024).

Richards discloses a retrieving RDS information from a multiplex signal (Figure 4, signal node 44), comprising: demodulating said multiplex signal by employing a second harmonic of a pilot carrier of said multiplex signal (signal 85) so as to obtain first intermediate signal (signal from 76 to 78); and deriving an amplitude modulated RDS signal on the basis of said first intermediate signal (signal 78 continues through references 80, 81, 92A, 58,62, to data display 26). Further multiplying multiplex signal by second harmonic (signal 85 at 38 KHz) of pilot carrier (19 kHz) and extracting a stereo-difference by low pass filtering (output from 78 continues to produce difference signal 47).

Allowable Subject Matter

5. Claims 2-4 are allowed.

6. Claims 17, 19, 22, 23, 25, 27, 31-33, 35, and 39-41 objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in

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independent form including all of the limitations of the base claim and any intervening claims.

Conclusion

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Justin Michalski whose telephone number is (703)305-5598. The examiner can normally be reached on 8 Hours, 5 day/week.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Bill Isen can be reached on (703)305-4386. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

8. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

JIM


FORESTER W. ISEN
SUPERVISORY PATENT EXAMINER